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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,492

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Ted Guidotti

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11/07/2006

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EXAMINER

HAND, MELANIE JO

ART UNIT

PAPER NUMBER

3761

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,492

Applicant(s)

GUIDOTTI ET AL.

Examiner

Melanie J. Hand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see Remarks, filed August 25, 2006, with respect to the rejection(s) of claim(s) 1-23 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references and a different interpretation of the previously applied prior art reference of Bernardin.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, 7-9, 14, 15 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardin (U.S. Patent No. 5,009,650) in view of Guidotti et al (U.S. Patent No. 6,037,518).

With respect to **Claims 1,16**: Bernardin teaches an absorbent article 1 comprising a liquid permeable upper surface defined by the upper surface of liquid permeable liner 2 and an absorbent structure 4, which article in the longitudinal direction has a crotch portion seen in Fig. 1 and two end portions also seen in Fig. 1, wherein the absorbent structure 4 comprises an acquisition layer 5 and at least one first storage layer 10 wherein said first storage layer 10 comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer, wherein the first storage layer 10 in a dry condition has a density between 0.14 – 0.3 g/cc and therefore does not teach a dry density exceeding 0.4

g/cm.sup.3. First storage layer 10 in the crotch portion of the absorbent structure has apertures or recesses in the form of pores.

Applicant has not assigned sufficient criticality to a dry density exceeding 0.4 g/cc, therefore the limitation is considered herein to be an optimization of the dry density. It would be obvious to one of ordinary skill in the art to further increase the density of the high-density layers 10,11 taught by Bernardin so as to have a density exceeding 0.4 g/cc, as Bernardin teaches that such high-density layers acquire and hold waste so as to prevent leakage.

Bernardin also does not teach that the high-density layers contain superabsorbent material. Guidotti teaches an absorbent article having a separate acquisition layer and storage layer wherein the storage layer is comprised of at least 10-80% superabsorbent material by weight of said storage layer. Since Guidotti teaches a storage layer that draws fluid from an acquisition layer, i.e. the storage layer of Guidotti performs an identical function to the storage layer of Bernardin, it would be obvious to one of ordinary skill in the art to include superabsorbent in the storage layer of Bernardin in an amount between 10-80% as taught by Guidotti with a reasonable expectation of success. This range satisfies the relevant limitation of claim 1.

With respect to **Claim 2**: Bernardin does not teach a dry density exceeding 0.5 g/cm.sup.3. Applicant has not assigned sufficient criticality to a dry density exceeding 0.5 g/cc, therefore the limitation is considered herein to be an optimization of the dry density. It would be obvious to one of ordinary skill in the art to further increase the density of the high-density layers 10,11 taught by Bernardin so as to have a density exceeding 0.4 g/cc, as Bernardin teaches that such high-density layers acquire and hold waste so as to prevent leakage.

With respect to **Claim 3**: Bernardin also does not teach that the high-density layers contain superabsorbent material in an amount of at least 70% by weight. Guidotti teaches an absorbent article having a separate acquisition layer and storage layer wherein the storage layer is comprised of at least 10-80% superabsorbent material by weight of said storage layer. Since Guidotti teaches a storage layer that draws fluid from an acquisition layer, i.e. the storage layer of Guidotti performs an identical function to the storage layer of Bernardin, it would be obvious to one of ordinary skill in the art to include superabsorbent in the storage layer of Bernardin in an amount between 10-80% as taught by Guidotti with a reasonable expectation of success. This range satisfies the relevant limitation of claim 3.

With respect to **Claims 4,19**: Bernardin teaches that first storage layer 10 contains pores, which Examiner considers herein to be an aperture that extends through an entire thickness of the first storage layer.

With respect to **Claims 7,20**: The first storage layer 10 has a first surface facing the liquid permeable upper surface of the article and a second surface facing away from the liquid permeable surface of the article, wherein the acquisition layer 5 lies close to the first surface of the storage layer 10 as seen in Fig. 7.

With respect to **Claims 8,21**: The first storage layer 10 has a first surface facing the liquid permeable upper surface of the article, and a second surface facing away from the liquid permeable surface of the article, wherein the acquisition layer 5 lies close to the second surface of the storage layer. Applicant has not sufficiently defined the relative term "close", therefore

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Examiner considers the acquisition layer 5 taught by Bernardin to be close to the second surface of the first storage layer 10.

With respect to **Claim 9**: Bernardin does not teach that the liquid permeable top sheet 2 and the acquisition layer 5 are thermally joined in a hollow space in the first storage layer created by said apertures or recesses. However, an article as taught by Bernardin in which the acquisition layer 5 is bonded in the manner set forth in claim 9 would produce a substantially structurally identical article to that taught by Bernardin in the instant invention. It would be obvious to one of ordinary skill in the art to bond the acquisition layer taught by Bernardin such that the layer is thermally bonded in the recesses as an alternative to simply bonding the acquisition layer to the topsheet at the peripheral edges as taught by Bernardin. Rejection under 35 U.S.C. 103 is indicated where prior art discloses product that appears to be either identical with or only slightly different from product claimed in product-by-process claim. See *In re Fitzgerald, Sanders, & Bagheri*, 205 USPQ 594 (CCPA 1980).

With respect to **Claims 14,22**: The absorbent structure 1 further comprises a second storage layer 11. Bernardin teaches that the two storage layers are each equivalent to a single storage layer 6 in an alternate embodiment, and Bernardin teaches combining said storage layer 6 (and thus by extension layer 11) with other absorbents to achieve a lower density depending upon the application of the absorbent structure of the instant invention. Bernardin does not explicitly teach that the high-density layers contain superabsorbent material or that second storage layer 11 contains less superabsorbent by weight than first storage layer 10.

Guidotti teaches an absorbent article having a separate acquisition layer and storage layer wherein the storage layer is comprised of at least 10-80% superabsorbent material by

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weight of said storage layer. Since Guidotti teaches a storage layer that draws fluid from an acquisition layer, i.e. the storage layer of Guidotti performs an identical function to the storage layer of Bernardin, it would be obvious to one of ordinary skill in the art to include superabsorbent in the storage layers 10,11 of Bernardin with a reasonable expectation of success. The combined teaching of Bernardin thus teaches a second storage layer having a lower density (i.e. lower amount of superabsorbent) than a first storage layer.

With respect to **Claim 15,23**: Bernardin teaches second storage layer 11 but does not teach that said second storage layer partly or entirely encloses the first storage layer. However, it would be obvious to one of ordinary skill in the art to expand the surface area of said second storage layer so as to partly or entirely enclose said first storage layer as the increased surface storage area allows for greater fluid handling capability and prevention of leakage.

With respect to **Claim 17**: The absorbent structure 4 comprises an acquisition layer 5 and at least one first storage layer 10 wherein said first storage layer 10 comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer

With respect to **Claim 18**: The first storage layer 10 in a dry condition has a density between 0.14 – 0.3 g/cc and therefore does not teach a dry density exceeding 0.4 g/cm.^{sup.3}. First storage layer 10 in the crotch portion of the absorbent structure has apertures or recesses in the form of pores.

Applicant has not assigned sufficient criticality to a dry density exceeding 0.4 g/cc, therefore the limitation is considered herein to be an optimization of the dry density. It would be obvious to one of ordinary skill in the art to further increase the density of the high-density layers

10,11 taught by Bernardin so as to have a density exceeding 0.4 g/cc, as Bernardin teaches that such high-density layers acquire and hold waste so as to prevent leakage.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardin ('650) in view of Lassen et al (U.S. Patent Application Publication No. 2002/0013563).

With respect to **Claim 5**: Bernardin does not teach that said apertures extend along the longitudinal direction of the absorbent structure, wherein the apertures or recesses comprise longitudinal channels. Lassen teaches that the recesses define a segmented core with segments of this width so as to accommodate flexure axes to allow it to bend preferentially convexly toward the user's body to put said article in a more advantageous position to perform its function, therefore it would be obvious to one of ordinary skill in the art to modify the device of Bernardin so as to have apertures comprising longitudinal channels having a width of no greater than 20 mm as this allows the crotch portion of the article to conform to fit the crotch area of the user as taught by Lassen.

With respect to **Claim 6**: Lassen teaches that the width of article 10 is in the range of 2-10 cm, or 20-100 mm (¶ 0057), therefore the material between will exhibit a width being maximally 20 mm.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardin ('650) as applied to claims 1-5, 7-9, 13-17 and 19-23 above, and further in view of Berg et al (U.S. Patent No. 5,180,622).

With respect to **Claims 10 and 12**: Bernardin does not teach that acquisition layer 11 is comprised of polyacrylate foam material. Berg teaches a polyacrylate foam material used in an absorbent core 41 of a diaper 20. (Fig. 1) (Col. 22, lines 61-65). Said absorbent core is comprised of an acquisition zone 56 (Col. 32, lines 35-44) and since the core material is uniform throughout, said acquisition zone 56 is also comprised of polyacrylate foam material. (claim 10) Berg teaches that said foam material is formed by an acrylic acid monomer allowed to polymerize with the aid of an interparticle crosslinking agent sprayed on the acrylic acid monomers. (Col. 7, lines 40-46, Co. 14, lines 28-39) (claim 12) Berg teaches that such a material especially in film form integrated in an absorbent article enhances fluid uptake rate and minimizes gel blocking (Abstract), therefore it would obvious to one of ordinary skill in the art to modify the acquisition layer taught by Bernardin to be comprised of a polyacrylate foam sheet material as taught by Berg.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable Bernardin ('650) and further in view of Berg et al (U.S. Patent No. 5,180,622) as applied to claims 10 and 12 above, and further in view of Shepard et al (U.S. Patent No. 6,869,659).

With respect to **Claim 11**: The combined teaching of Bernardin and Berg does not teach an absorbent article comprising a polyacrylate foam acquisition layer having a Gurley stiffness of less than 1,000 mgf.

Shepard teaches a foam coating applied to a nonwoven web as a backing that is an acrylic foam. Shepard teaches that the web having the foam coating is the backing for a loop fastener fabric, wherein the loop fabric has a Gurley stiffness of less than 300 mg. The loop fabric has a slight stiffness that Shepard teaches can be reduced, therefore the stiffness of the

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foam itself cannot be greater than 1,000 mgf if the stiffness of the entire fabric, comprised of thin flexible nonwoven materials, has a stiffness of less than about 300 mgf. Shepard teaches that such a foam coating results in a thin, flexible loop fastener fabric, therefore it would be obvious to one of ordinary skill in the art to employ a foam layer or coating in the article taught by the combined teaching of Bernardin and Berg so as to have a Gurley stiffness for the acquisition layer of less than 300 mgf as taught by Shepard.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernardin ('065) in view of McBride (U.S. Patent Application Publication No. 2004/0019340).

With respect to **Claim 13**: Bernardin does not teach corona treating the acquisition layer 5. McBride teaches an absorbent article having a topsheet and acquisition layer in which either or both are treated to improve affinity to water and water handling, therefore it would be obvious to one of ordinary skill in the art to corona treat the acquisition layer taught by Bernardin to improve its affinity for water and fluid handling as taught by McBride. ('340, ¶0037)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie J. Hand whose telephone number is 571-272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie J Hand
Examiner
Art Unit 3761

MJH

TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Tatyana', with a long, sweeping horizontal stroke extending to the right.